TRANSACTIONS

of the

American Fisheries Society

"To promote the cause of fish culture; to gather and diffuse information bearing upon its practical success, and upon all matters relating to the fisheries; to unite and encourage all interests of fish culture and the fisheries; and to treat all questions of a scientific and economic character regarding fish."

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A WORD ABOUT FLORIDA'S FISH AND HER FISHERIES.

By J. Asakiah Williams,
Shell Fish Commissioner of Florida.

Man, in his earlier stages of existence, found nature a free storehouse from which he could draw at will. As population increased, the demands upon this storehouse increased. Then there came a time when the demand exceeded the available supply and man began to assist in his own support by conserving what he had on hand and by improving on nature, making "two blades of grass grow where only one grew before." To encourage such assistance, personal property rights became a rule of society. As men increased in numbers and greater demands were made upon nature's storehouse, it was found necessary to conserve further, and the laying hen was not killed, the sow heavy with pig was spared. Thus again was nature further assisted. But man, fulfilling God's command to "replenish the earth," became in some localities so numerous that even with this assistance, nature's storehouse was failing in its supply. Especially was this true in the fish of the streams, the game of the woods, the useful trees of the forest. Then society exercised its sovereign power over its nature's storehouse and passed regulations concerning the taking of the same.

Education as to the necessity for conservation is, of course, a forerunner of all conservation measures, and the enforcement of such measures is dependent to a large extent upon such education. Sometimes even our trial judges and prosecuting attorneys, learned in the law, fail to sympathize with conservation measures. Where there are such judges and attorneys, it is difficult to get convictions for violations of the law. It is needless to say that these men are honest and learned, yet they are ignorant of the reasons for and need of such laws. Fortunately, there are but few such judges and attorneys.

Conservation laws are curtailments of a man's natural privileges for the good of the majority. The taking of fish and game when not forbidden by law is not evil *per se*, because society has not seen

fit to regulate the taking. But where society has undertaken to regulate it, then the taking contrary to such regulations is evil *per se;* the community has exercised its sovereign power over its own property. "Thou shalt not steal," and he who violates society's regulations for taking from nature's storehouse, to his own advantage, steals from the rest of the community.

Experience has shown that conservation laws are necessary and that to get the best enforcement of such laws it also is necessary to remove (as far as is possible) from localities affected and from local politics, the power of such enforcement. Such laws have failed of enforcement where left to sheriffs and county police officers. A state head has been found to get the best results. The best possible protection and benefit to the fishing industries comes from state supervision. By this means, local conditions do not bias enforcement of the laws, and enforcement throughout the state is uniform. At the same time, the head is sufficiently close to be in touch with all circumstances arising and to familiarize itself with the peculiar conditions of each stream, lake, bay, and river. For these reasons a state control is the best solution so far found. Federal aid and assistance should be had upon request and by way of suggestion, but not by right of authority, for the reason that a federal head would be too far removed, and it would be far more difficult to regulate and legislate for each locality so as to conserve, and at the same time draw, to the greatest extent consistent with conservation.

Through ignorance and procrastination, a calamity has been and is being wrought upon us by the wanton destruction of our fish, game and timber in the greater portion of our country. At last, and too late for the pigeon and buffalo, a few of the states have awakened and have adopted good conservation laws, well enforced, for fish, game and forest. Other states are rousing from their slumber and have some kind of conservation laws, more or less enforced, for game. Fewer still have laws for fish, and a very few for forests.

Our Florida laws governing fresh-water fish are not worthy of the name. Such as they are, they are under the county police officers for enforcement; and that means no enforcement except occasionally in some localities. A large number of the counties

have local fresh-water laws, passed without scientific or working knowledge, and the results are unsatisfactory.

Our salt-water fishing legislation covers a period of many years without any general repealing act. As a result, it is almost impossible to tell what laws govern in many instances, and we have laws galore, probably 150 pages, ordinary book size. At the last session of the Legislature a general bill covering all needful legislation, (some 30 pages), and repealing all other laws on the subject, was introduced, but for want of time for discussion when it came up for passage and because of ignorance of its need and of its provisions, and also because of politics, its passage was prevented. Such a law would have been greatly beneficial to Florida. We will get it next time.

There are indications of a coming conflict in Florida between those interested in sport fishing and those engaged in commercial fishing. The sport fishermen are backed in their demands for waters in which commercial fishing shall be prohibited, by our coast cities and towns, which receive many tourists during the winter season; while the commercial fishermen are backed by the fish dealers of the state. There are fish in abundance for both and the solution to this problem must soon be had, for it would be a great detriment to commercial fishing industries if large sections of the state were unnecessarily closed to net fishermen.

For the purpose of this discussion, Florida's fishing will be divided into—

(1) Fresh-water fish.

(2) Salt-water fish, under which heading we include all fish except those that live in the fresh waters only. For convenience, the salt water fish will be divided further into—

(a) Shore fish, or those fish usually taken in bays and inshore waters; and

(b) Deep-sea fish.

From a commercial standpoint, Florida's fresh waters furnish large quantities of cat, perch, bream, and big-mouth bass. Each kind furnishes a supply in about the order named. As large as this commercial fishing is, it is but about half of what it should be. The rainfall of our state is great, hence we have numerous rivers, lakes and streams. The climate is subtropical, hence fish food abounds. By reason of mistaken ideas, there are many local

conservation laws prohibiting from being fished, except with hook and line, many lakes which should yield large quantities of fish for commercial purposes without injury to sport.

Now I wish to be clearly understood. Where sport fishing and commercial fishing conflict to the extent that the angler is deprived of his sport, and there is a demand for such sport, I stand for sport fishing in preference to commercial fishing. Sport fishing tends to clean living and good health. It is a sport enjoyed by old and young, male and female; and these are things much to be desired by the state for its citizens and to be much more highly prized than gold and silver. Yet in our state there are many lakes and rivers closed to all but hook and line fishing, upon which but little sport fishing is done. Again, the supply of fish in other waters is far greater than necessary for the angler, and in such cases the larger fish eat the smaller ones and, growing wise with age, refuse to take the hook and there is poor sport in fishing such waters. In many waters now closed, much valuable fish might be taken by trap and other such devices, so constructed as to permit the escape (or the return alive and uninjured, to the water) of all small fish, the waters being so fished as not to destroy or injure the fishes food or their breeding grounds.

In Lake Okechobee much destruction of food fish is wrought by commercial fishermen. This lake is about 55 miles in diameter and yields enormous quantities of food fish. It is said to have yielded $3,000,000 annually in catfish alone for several years. Seines a thousand yards long or more are used. The catch is held until the cats are skinned and weighed. The dealers prefer the cats and, to encourage cats only to be taken, foolishly limit the quantity of perch, croppie, bream and bass to be taken to, say, 20 pounds of scale fish to 100 pounds of cats. After weighing up the cats, the quantity of scale fish permissible is saved from the catch and the remainder is thrown dead overboard or, more often, cut up and used to bait another section of the lake to be seined hours later. This doubtless shocks you, as it does me. This practice is not generally known throughout the state. It must cease, for it is a crime against civilization, but we now have no law to prevent such acts, owing to our pernicious local laws.

Our salt-water shore fishes consist of shell and scale fish. We have in shell fish the scallop clam, which is not commercialized,

yet I am of the opinion that in some of our waters they are of sufficient quantities to be profitably taken. In commercial importance, the oyster ranks first among our shell fish. In many of our brackish waters they are found in paying quantities. Appalachicola has probably the largest natural oyster beds south of the Chesapeake. There oysters grow rapidly and to a great size. They are fat throughout the year, being eaten at all times by the citizens of the country.

Probably one of the largest known clam beds of the world is on the southwest coast of Florida. It is some five miles wide and fifteen miles long. Two large, modern, sanitary canning factories operate there throughout the year.

Of our scale fish, the mullet is by far the most important from a commercial and economic viewpoint. Commercially, it constitutes almost one half of all our scale fish industries; and economically it is the cheapest as well as one of our best fish. There are two distinct varieties:

(1) The common mullet, which is always with us; and

(2) The silver mullet, which visits our shores in the spring to spawn.

The common mullet (*Mugil cephalus*) spawns in the fall. There are reasons for believing that this mullet should be further divided into two separate classes, one of which lives in the fresh waters, only going to the salt waters for spawning. This type appears to be darker along the back and to have a blunter snout. To those of you who are scientific, I suggest that here is a field for investigation.

Before passing from mullet, I wish to say that we have a closed season on them from November 20th to January 20th for the east and south-west coasts of Florida, the time during which they mainly spawn. Recently on a trip along the east coast, I was informed that there are enough mullet now, about two years old, (too small to be taken this year, but which will be large enough for next season) to supply our catch for the next five years.

As important to us (and also to North Carolina) as the mullet are, there has been, so far as I know, but little investigation of their habits, haunts, food, and manner of reproduction, either by individuals, by the state, or by the federal government, notwithstanding they are a shore fish.

We made some investigations concerning their reproduction during the fall of 1918. The Florida Shell Fish Commission caused one of its deputies, C. H. Nesley (who claimed to have had some thirty years experience in artificial hatching) to make experiments. From other sources and from his reports, we know the following to be true:

(1) Mullet when ripe, by handling give forth freely both eggs and milt.

(2) The eggs are not adhesive, but separate freely.

(3) The eggs are heavier than salt water.

(4) Their eggs have been artificially taken and fertilized and within ten minutes thereafter have been found to be greatly increased in size.

I beg to refer you for details to the Third Biennial Report of the Shell Fish commission, pages 29, 30, 31 and 32.

Owing to the fact that some fishermen of that section (who are densely ignorant) made statements, at the request of a designing politician, to the effect that this Charles Nesley never hatched any mullet, some question has arisen whether he really obtained the results which he has claimed. Yet some of these same fishermen have informed me, by mouth and by letter, that the eggs so taken and fertilized grew in ten minutes to be ten times as large as when they were stripped from the fish, and that they personally had not seen anything further of the operations.

Nesley knew how to hatch fish. After this experiment, I had him hatch shad on the St. John's River. We purchased the jars and he erected the outfit. I saw the eggs hatching, and have some of the fish preserved. Before he made the investigation, Nesley was of the opinion that mullets spawned in fresh waters only. A change in his convictions is, in my opinion, an inward evidence that his report is worthy of acceptance. In the next place the small per cent of ripe mullet found with the catch of roe mullet was exceedingly small in comparison with our expectations; and, again, this in my opinion is an inward evidence of truthfulness and reliability. Again, he had no motive for deception. He is careful of his reputation as a fish culturist and he knew that his reputation was at stake. For the reasons given I would be pleased, when I have finished, to have a discussion on these questions:

(1) Where fish eggs can be stripped easily, are non-adhesive, are heavier than water, and when fertilized readily "set up," becoming many times larger than when stripped, is it probable that such eggs can be hatched by artificial methods?

(2) Could they probably be hatched by the method which Nesley claims to have proved?

Before passing, I must say a few words concerning investigations made by me regarding turtle. In Florida we have four varieties of sea turtle. In commercial importance, the green turtle (which is vegetarian) ranks first. Next in commercial value is the bastard turtle, which appears, in flavor, habits and form, to be a cross between the green and loggerhead turtles, although in my opinion it is a distinct species. However, I have no knowledge as to this. Then we have loggerhead turtles, which are flesh eaters. Their flesh is coarse and strong and is eaten by the natives, but has only a local commercial value. We also have tortoise-shell turtle, but they are rare.

Heretofore it has been held that the green turtle laid only in the West Indies. But from investigations I have made, I find they deposit their eggs also on the coast of Florida.

A turtle lays from 60 to 110 eggs at a laying. They commence laying in April or May and continue to lay until August or September. Upon the opening a turtle ready to deposit its eggs I found eggs shelled ready for laying; other eggs about grown, but unshelled; and still others in the earlier stages.

Turtles lay on moonlight nights and also on dark nights. It is my opinion that they lay once every two weeks during the season. Once ready to deposit her eggs, the mother turtle cautiously approaches the beach and, protruding her head above water, looks and listens. If any unusual sight is seen, or unusual sound is heard, she draws back her head and goes back to sea to approach the beach at some other point. After being satisfied that there is no danger, she crawls upon the beach at some point above high tide and first usually stirs up the ground in several different places. Then with her hind flippers she digs a hole about eighteen inches deep—remarkably deep considering the length of her flippers. In this hole she deposits her eggs, all in a pile. Then she covers them up and again, for five feet all around, turns up the sand so as to conceal from man or beast the exact location of the nest. Having

thus camouflaged the nest before and after depositing the eggs, she makes for the sea. It is while laying that turtles are generally taken. The hunter, finding them out on the beach, turns them on their backs and they become powerless.

The nest is deep enough not to be overheated by the sun's rays or chilled by the waters of the sea. An examination by day or night will show a warm, even temperature, the nest being just a little less heated than is a hen's nest. How the turtle in the first place ever found out that, in a hole eighteen inches deep and just above high tide, the heat of the sun and the cool of the sea would mingle and keep a steady temperature that would hatch her eggs and save her the trouble of sitting on the nest, is to me a mystery.

The fame of Florida's citrus fruits are known the world over. Fancy concerning them fills the minds of those who have not seen them and Florida is justly famous for them. But Florida's fishing industries are even greater; and when the superior quality of her fish become better known and her fishing operations are wisely conducted, improved and extended, they will increase many times in value. Recently one packer showed me his books and from his records we found that the fish he handled had brought gross to his firm a sum that, when added to what the carriers received for carrying the fish, amounted to about one and one half million dollars for one year. We have in Florida about 100 fish packing firms, of which some twenty each handle as much fish as this particular firm. One dealer once told me that he had on a certain day paid two men $800. for their week's hook-and-line catch of fish.

If you will pardon the digression, I will tell what befell me and what I learned within the last week, which illustrates the hospitality of a native Florida fisherman and his success.

A deputy was accompanying me on an inspection tour of his district. We were traveling by auto. He was mistaken as to the quantity of gasoline we had and about eleven o'clock at night, when seven miles from any hotel or similar institution, the gas gave out. My deputy said he knew a fisherman who lived near, a Mr. Carver, who was doubtless out fishing. "This man," he said, "has an outhouse with two single cots in it. We will go there and take charge." Following his suggestion, I found things

as he had described them. The outer door was unfastened. In we went and to bed. Before day in came the fisherman and, to his astonishment and evident delight, he found us in his beds, one on each cot. I offered to relinquish to him the cot I was occupying, but he would none of it, though he had fished all night and was weary. He reclined on the floor and told anecdotes for half an hour or more for our entertainment and kept us roaring with laughter. Many of the stories he told were on himself and equaled anything ever written by the immortal Mark Twain.

After thus entertaining us, he informed us that his wife was away on a visit and that he was an excellent cook and clean, neat housekeeper and that he would prepare breakfast; for us to go to sleep and he would have breakfast at sunrise, then wake us up, We protested until we saw that further protest would grieve him. We had a good breakfast; fat fresh mullet, perfectly cooked grits. (something we eat as bread and of which you know nothing, but the sooner you find out the happier your stomachs will be and the less indigestion you will have), and delicious coffee.

Our host was a typical Florida cracker fisherman, unlearned, talkative, honest, industrious, hospitable, confiding. He was about thirty-five years old. He fished as the law provided. He drank, at times getting drunk and would fight at the drop of a hat. He informed me that he never did anything for a living but fish; that he had $4,200 in the bank and had twelve $20 bills in his pocket, and showed me the bills. He took down another purse, well filled, from the rafters from behind cobwebs. How much money his wife had taken with her on her visit to Georgia he did not say. He had a comfortable little home, a launch and fishing net and about $1,000 worth of hogs. It is likely he fought, drank and spent his money until twenty-five years old and, since marrying (in ten years), by legal fishing had supported a wife and accumulated in cash and other property some six or seven thousand dollars.

Who, being a man who must earn his bread by the sweat of his brow, would not prefer to be a Florida commercial fisherman? No noxious gas of the mine to suffocate him; no smoke and noise of the factory to stifle and deafen him; no burning sun to blister him as he turns the furrow; no hard-hearted boss to find fault and bulldoze him. Pure air fills his lungs. Instead of deafening

noises and stifling smoke, he hears the songs of birds and smells the perfume of flowers. No man his superior, the equal of kings. Enjoying all these advantages, he yet by frugality and industry can earn more than a living and be able to lay by something for a stormy day. He is his own master. During the summer he goes forth in the night and cool breezes blow upon his brow. During the winter he goes forth by day and the warm sun cheers him. If fishing by night, ever the stars shining brightly above give him hope; if fishing by day, the wavelets as they break against his boat murmur encouragement.

To those of you who are scientific, no field is so pregnant with discussion as Florida waters. To those of you who represent states that furnish for their own consumption less than their demands, I suggest to you that you refer your dealers to Florida markets for their supplies. To all of you, and to all those you represent, who delight in the sport of fishing, we invite you to any of our waters.

American Fisheries Society

ORGANIZED 1870

CERTIFICATE OF INCORPORATION.

We, the undersigned, persons of full age and citizenship of the United States, and a majority being citizens of the District of Columbia, pursuant to and in conformity with sections 599 to 603, inclusive, of the Code of Law for the District of Columbia, enacted March 3, 1901, as amended by the Acts approved January 31 and June 30, 1902, hereby associate ourselves together as a society or body corporate and certify in writing:

1. That the name of the Society is the AMERICAN FISHERIES SOCIETY.

2. That the term for which it is organized is nine hundred and ninety-nine years.

3. That its particular business and objects are to promote the cause of fish culture; to gather and diffuse information bearing upon its practical success, and upon all matters relating to the fisheries; to unite and encourage all interests of fish culture and the fisheries; and to treat all questions of a scientific and economic character regarding fish with power:

(*a*) To acquire, hold and convey real estate and other property, and to establish general and special funds.

(*b*) To hold meetings.

(*c*) To publish and distribute documents.

(*d*) To conduct lectures.

(*e*) To conduct, endow, or assist investigation in any department of fishery and fish-culture science.

(*f*) To acquire and maintain a library.

(*g*) And, in general, to transact any business pertinent to a learned society.

4. That the affairs, funds and property of the corporation shall be in general charge of a council, consisting of the officers and the executive committee, the number of whose members for the first year shall be seventeen, all of whom shall be chosen from among the members of the Society.

Witness our hands and seals this 16th day of December, 1910.

SEYMOUR BOWER (Seal)
THEODORE GILL (Seal)
WILLIAM E. MEENAN (Seal)
THEODORE S. PALMER (Seal)
BERTRAND H. ROBERTS (Seal)
HUGH M. SMITH (Seal)
RICHARD SYLVESTER (Seal)

Recorded April 16, 1911.

Presidents, Terms of Service and Places of Meeting.

The first meeting of the Society occurred December 20, 1870. The organization then effected continued until February, 1872, when the second meeting was held. Since that time there has been a meeting each year, as shown below. The respective presidents were elected at the meeting, at the place, and for the period shown opposite their names, but they presided at the subsequent meeting.

1.	William Clift	1870–1872	New York, N. Y.
2.	William Clift	1872–1873	Albany, N. Y.
3.	William Clift	1873–1874	New York, N. Y.
4.	Robert B. Roosevelt	1874–1875	New York, N. Y.
5.	Robert B. Roosevelt	1875–1876	New York, N. Y.
6.	Robert B. Roosevelt	1876–1877*	New York, N. Y.
7.	Robert B. Roosevelt	1877–1878	New York, N. Y.
8.	Robert B. Roosevelt	1878–1879	New York, N. Y.
9.	Robert B. Roosevelt	1879–1880	New York, N. Y.
10.	Robert B. Roosevelt	1880–1881	New York, N. Y.
11.	Robert B. Roosevelt	1881–1882	New York, N. Y.
12.	George Shepard Page	1882–1883	New York, N. Y.
13.	James Benkard	1883–1884	New York, N. Y.
14.	Theodore Lyman	1884–1885	Washington, D. C.
15.	Marshall McDonald	1885–1886	Washington, D. C.
16.	W. M. Hudson	1886–1887	Chicago, Ill.
17.	William L. May	1887–1888	Washington, D. C.
18.	John H. Bissell	1888–1889	Detroit, Mich.
19.	Eugene G. Blackford	1889–1890	Philadelphia, Pa.
20.	Eugene G. Blackford	1890–1891	Put-in-Bay, Ohio.
21.	James A. Henshall	1891–1892	Washington, D. C.
22.	Herschel Whitaker	1892–1893	New York, N. Y.
23.	Henry C. Ford	1893–1894	Chicago, Ill.
24.	William L. May	1894–1895	Philadelphia, Pa.
25.	L. D. Huntington	1895–1896	New York, N. Y.
26.	Herschel Whitaker	1896–1897	New York, N. Y.
27.	William L. May	1897–1898	Detroit, Mich.
28.	George F. Peabody	1898–1899	Omaha, Neb.
29.	John W. Titcomb	1899–1900	Niagara Falls, N. Y.
30.	F. B. Dickerson	1900–1901	Woods Hole, Mass.
31.	E. E. Bryant	1901–1902	Milwaukee, Wis.
32.	George M. Bowers	1902–1903	Put-in-Bay, Ohio.
33.	Frank N. Clark	1903–1904	Woods Hole, Mass.
34.	Henry T. Root	1904–1905	Atlantic City, N. J.
35.	C. D. Joslyn	1905–1906	White Sulphur Spgs, W. Va.
36.	E. A. Birge	1906–1907	Grand Rapids, Mich.
37.	Hugh M. Smith	1907–1908	Erie, Pa.
38.	Tarleton H. Bean	1908–1909	Washington, D. C.
39.	Seymour Bower	1909–1910	Toledo, Ohio.
40.	William E. Meehan	1910–1911	New York, N. Y.
41.	S. F. Fullerton	1911–1912	St. Louis, Mo.
42.	Charles H. Townsend	1912–1913	Denver, Colo.
43.	Henry B. Ward	1913–1914	Boston, Mass.
44.	Daniel B. Fearing	1914–1915	Washington, D. C.
45.	Jacob Reighard	1915–1916	San Francisco, Cal.
46.	Geo. W. Field	1916–1917	New Orleans, La.
47.	Henry O'Malley	1917–1918	St. Paul, Minn.
48.	M. L. Alexander	1918–1919	New York, N. Y.
49.	Carlos Avery	1919–1920	Louisville, Ky.

*A special meeting was held at the Centennial Grounds, Philadelphia, Pa., October 6 and 7, 1876.

LIST OF MEMBERS, 1919-1920

Showing Year of Election to Membership

HONORARY MEMBERS

The President of the United States.....Woodrow Wilson

The Governors of the several States:

Alabama.....Thomas E. Kilby
Arizona.....Thomas E. Campbell
Arkansas.....Chas. H. Brough
California.....William B. Stephens
Colorado.....Oliver H. Shont
Connecticut.....Marcus H. Holcomb
Delaware.....John G. Townsend, Jr.
Florida.....Sidney J. Catts
Georgia.....Hugh M. Dorsey
Idaho.....D. W. Davis
Illinois.....Frank O. Lowden
Indiana.....Jas. P. Goodrich
Iowa.....Wm. L. Harding
Kansas.....Henry Allen
Kentucky.....Edwin P. Morrow
Louisiana.....Ruffin G. Pleasant
Maine.....Carl E. Milliken
Maryland.....Albert C. Ritchie
Massachusetts.....Calvin Coolidge
Michigan.....Albert E. Sleeper
Minnesota.....J. A. A. Burnquist
Mississippi.....Lee M. Russell
Missouri.....Frederick D. Gardner
Montana.....Samuel V. Stewart
Nebraska.....Samuel R. McKelvie
Nevada.....Emmet D. Boyle
New Hampshire.....John H. Bartlett
New Jersey.....Edward I. Edwards
New Mexico.....Octaviano A. Larrazolo
New York.....Alfred E. Smith
North Carolina.....Thomas W. Bickett
North Dakota.....Lynn J. Frazier
Ohio.....James M. Cox
Oklahoma.....J. B. A. Robertson
Oregon.....B. W. Olcott
Pennsylvania.....Wm. C. Sproul
Rhode Island.....R. Livingston Beeckman
South Carolina.....Robert A. Cooper
South Dakota.....Peter Norbeck
Tennessee.....A. H. Roberts
Texas.....W. P. Hobby
Utah.....Simon Bamberger
Vermont.....Horace F. Graham
Virginia.....Westmoreland Davis
Washington.....Louis F. Hart
West Virginia.....John J. Cornwell
Wisconsin.....E. L. Phillips
Wyoming.....Robert D. Carey

'08 Antipa, Prof. Gregoire, Inspector-General of Fisheries, Bucharest, Roumania.
'06 Besana, Giuseppe, Lombardy Fisheries Society, Via Rugabello 19, Milan, Italy.
'09 Blue Ridge Rod and Gun Club, Harper's Ferry, W. Va.
'93 Borodin, Nicolas, Petrograd, Russia.
'12 Calderwood, W. L., Inspector of Salmon Fisheries for Scotland, Edinburgh, Scotland.
'04 Denbigh, Lord, London, England.
'89 Fish Protective Association of Eastern Pennsylvania, 1020 Arch St., Philadelphia, Pa.
'04 Fryer, Sir Charles E., Royal Automobile Club, London, England.
'06 Grimm, Dr. Oscar, Petrograd, Russia.
'04 Kishinouye, Dr. K., Imperial University, Tokyo, Japan.
'08 Kitahara, Dr. Tasaku, Imperial Fisheries Bureau, Tokyo, Japan.
'88 Lake St. Clair Shooting and Fishing Club, Detroit, Mich.
'17 Mercier, Honore, Minister of Colonization, Mines and Fisheries, Quebec, Canada.
'09 Nagel, Hon. Chas., St. Louis, Mo.
'95 New York Association for the Protection of Fish and Game, New York City.
'08 Nordqvist, Dr. Oscar Fritjof, Superintendent of Fisheries, Lund, Sweden.
'06 Perrier, Prof. Edmond, Director Museum of Natural History, Paris, France.
'92 Vinciguerra, Prof. Dr. Decio, Director Royal Fish Cultural Station, Rome, Italy.

CORRESPONDING MEMBERS

'84 Apostolides, Prof. Nicoly Chr., Athens, Greece.
'87 Armistead, J. J., Dumfries, Scotland.
'04 Ayson, L. F., Commissioner of Fisheries, Wellington, New Zealand.
'09 Flegel, Chas., Canea, Crete.
'08 Higginson, Edurado, Consul for Peru, New York City.
'84 Landmark, A., Inspector of Norwegian Fresh-Water Fisheries, Christiania, Norway.
'84 Marston, R. B., Editor of the Fishing Gazette, London, England.
'08 Potteau, Charnley, Lommel, Belgium.
'84 Raveret-Wattel, C., Director of Aquicultural Station at Nid-de-Verdier, 20 Rue des Acacias, Paris.
'84 Sars, Prof. G. O., Christiania, Norway.
'84 Solsky, Baron N. de, Director of the Imperial Agricultural Museum, Petrograd, Russia.
'10 Stead, David G., Fisheries Department, Sydney, New South Wales, Australia.

PATRONS

'14 Alaska Packers Association, San Francisco, Cal.
'15 Allen, Henry F. (Agent, Crown Mills), 210 California St., San Francisco, Cal.
'15 American Biscuit Co., 815 Battery St., San Francisco, Cal.
'15 American Can Co., Mills Building, San Francisco, Cal.
'15 Armour & Co., Battery and Union Sts., San Francisco, Cal.
'15 Armsby, J. K., Company, San Francisco, Cal.
'15 Atlas Gas Engine Co., Inc., Foot of 22d Avenue, Oakland, Cal.
'15 Balfour, Guthrie & Co., 350 California St., San Francisco, Cal.

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'11 Meyer, Gustav J. T., 829-831 South Delaware St., Indianapolis, Ind.
'17 Miller, Albert P., Linlithgo, N. Y.
'17 Miller, Dan E., Constantia, N. Y.
'08 Miller, Frank M., Box 536, Hammond, La.
'10 Millett, Arthur L., Gloucester, Mass.
'10 Miner, Roy W., American Museum of Natural History, New York City.
'19 Mischler, C. F., Sandusky, Ohio.

'19 Mitchell, Prof. Philip H., Brown University, Providence, R. I.
'13 *Mixter, Samuel J., M. D., 180 Marlboro St., Boston, Mass.
'18 Mollan, Wm. K., Board of Fisheries and Game, Bridgeport, Conn.
'17 Monker, C. C., Grand Marais, Minn.
'13 Monroe, Otis D., Supt. State Fish Hatchery, Palmer, Mass.
'19 Moore, Albert C., 326 Frisco Bldg., Joplin, Mo.
'13 Moore, Alfred, 618 American Bldg., Philadelphia, Pa.
'18 Moore, Dr. Emmeline, Conservation Commission, Albany, N. Y.
'04 Moore, Dr. H. F., U. S. Bureau of Fisheries, Washington, D. C.
'05 Morcher, George, London, Ohio.
'15 Morgulis, Dr. Sergius, Creighton Univ., Omaha, Nebr.
'18 Morley, E. C., Sodus Point, N. Y.
'04 Morris, Dr. Robert T., 616 Madison Ave., New York City.
'99 Morton, W. P., 105 Sterling Ave., Providence, R. I.
'10 Moser, Captain Jefferson F., 2040 Santa Clara Ave., Alameda, Cal.
'18 Motley, Jas. N., 15 E. 48th St., New York, N. Y.
'16 Munch, Wm. F., Crookston, Minn.
'10 Munly, M. G., 1012 Yeon Bldg., Portland, Ore.
'14 Myers, I. S., 604 Norwood St., Akron, Ohio.

'18 Needham, Prof. Jas. G., Cornell University, Ithaca, N. Y.
'73 and '10 Neidlinger, Philip, 2225 Emmons Ave., Sheepshead Bay, N.Y.
'16 Nelson, Chas. A. A., Lutsen, Minn.
'17 Nelson, J. O., State Fish Hatchery, Hawick, Minn.
'86 Nevin, James, Conservation Commission, Madison, Wis.
'07 *Newman, Edwin A., President, Aquarium Fisheries Co., 4305 8th St., N. W., Washington, D. C.
'19 Newark Bait and Fly Casting Club, Split Rock Lake, Boonton, N. J.
'18 New York Public Library, 476 Fifth Ave., New York, N. Y.
'18 New York State Library, Albany, N. Y.
'10 Nichols, John Treadwell, American Museum of Natural History, New York City.
'16 Nilson, L. A., Orangeburg, S. C.

'13 Oakes, Wm. H., 24 Union Park St., Boston, Mass.
'17 O'Brien, J. P., Box 1, Reno, Nev.
'16 O'Brien, Martin, Crookston, Minn.
'97 O'Brien, W. J., Supt. of Hatcheries, Nebraska Game and Fish Commission, Gretna, Neb.
'95 O'Hage, Dr. Justus, St. Paul, Minn.
'00 O'Malley, Henry, U. S. Bureau of Fisheries, 1217 L. C. Smith Bldg., Seattle, Wash.
'15 Opdenweyer, John W., Sorrento, La.
'19 Orr, Arthur, App. Committee, Capitol Bldg., Washington, D. C.
'18 Orsinger, Fred G., 123 S. Oakley Boulevard, Chicago, Ill.
'10 *Osburn, Prof. Raymond C., Ohio State University, Columbus, Ohio.
'17 Otis, Milo F., State Fish Hatchery, Upper Saranac, N. Y.
'12 Otis, Spencer, Railway Exchange, Chicago, Ill.

'17 Packer, Arthur, 423 Plymouth Bldg., Minneapolis, Minn.
'04 Palmer, Dr. Theodore S., United States Department of Agriculture, Washington, D. C.
'04 Parkhurst, Hon. C. Frank, 54 Barnes St., Providence, R. I.
'19 Parry, W. J. Croose, Laurentian Club, Lac la Peche, P. Q., Canada.
'07 Patching, Fred, Loring, Alaska.
'18 Pearse, Prof. A. S., University of Wisconsin, Madison, Wis.
'11 Pell, Geo. W., 520 Sixteenth St., Denver, Colo.
'05 Peoples, Hiram, New Providence, Pa.

'09 Pfleuger, J. E., Akron, Ohio.
'17 Pinkerton, J. A., Glenwood, Minn.
'13 Poole, Gardner, Fish Pier, Boston, Mass.
'11 Pohoqualine Fish Association, care of C. Wetherill, 17th and Lehigh Ave., Philadelphia, Pa.
'09 Pomeroy, Geo. E., Toledo, Ohio.
'04 Pope, T. E. B., Curator, Public Museum of the City of Milwaukee, Milwaukee, Wis.
'06 Porter, Richard, Board of State Fish Commissioners, Paris, Mo.
'19 Post Fish Co., Sandusky, Ohio.
'17 Pratt, George D., Telephone Bldg., Albany, N. Y.
'19 Prensker, Dr. G. A., 1348 Wellington Ave., Chicago, Ill.
'08 *Prince, Prof E. E., Dominion Commissioner of Fisheries, Ottawa, Canada.
'16 Purdy, Dorman S., 407 Temple Ave., Dunkirk, N. Y.

'03 Race, E. E., Boothbay Harbor, Me.
'10 *Radcliffe, Lewis, U. S. Bureau of Fisheries, Washington, D. C.
'18 Rankin, Edward P., care Miss O'Connor, San Lorenzo, Cal.
'93 Ravenel, W. de C., U. S. National Museum, Washington, D. C.
'16 Ray, J. E., Alexandria, La.
'09 Reed, Dr. H. D., Cornell University, Ithaca, N. Y.
'18 Reid, Geo. C., 1007 N. George St., Rome, N. Y.
'13 Reidel, F. K., Pleasant Mount, Pa.
'93 Reighard, Prof. Jacob E., University of Michigan, Ann Arbor, Mich.
'19 Renand, J. K., 207 New Court Bldg., New Orleans, La.
'17 Reynolds, O. J., Game Warden, Alexandria, Minn.
'98 Richards, G. H., Sears Building, Boston, Mass.
'18 Richardson, A. P., Supt. Hatchery, Caanan, Vt.
'15 Richardson, Robert E., Box 155, University Station, Urbana, Ill.
'17 Richtman, S. P., Fountain City, Wis.
'16 Riley, Mark, U. S. Bureau of Fisheries, San Marcos, Texas.
'19 Riley, Prof. Wm. A., University Farm, St. Paul, Minn.
'17 Risley, A. F., Old Forge, Herkimer Co., N. Y.
'18 Robertson, Alexander, Dominion Hatchery, Harrison Hot Springs, B. C., Canada.
'20 *Robertson, Hon. Jas. A., Skerryvore, Holmefield Ave., Cleveley's, Blackpool, England.
'19 Rodd, J. A., Dept. Naval Service, Ottawa, Canada.
'10 Rowe, Henry C., Daytona Beach, Fla.
'16 Rowe, Wm. H., West Buxton, Me.
'16 Royce, James, DeBruce, Sullivan County, N. Y.
'14 Russell, Geo. S., Bank of Commerce of N. A., Cleveland, Ohio.
'13 Ryan, Calvin D., U. S. Bureau of Fisheries, Ketchikan, Alaska.

'05 *Safford, W. H., U. S. Bureau of Fisheries, Gloucester, Mass.
'13 Santa Barbara Public Library, Santa Barbara, Cal.
'15 Schofield, N. B., 430 Kingsley Ave., Palo Alto, Cal.
'19 School of Fisheries, University of Washington, Seattle, Wash.
'16 Schrader, Franz, U. S. Bureau of Fisheries, Washington, D. C.
'18 Schradieck, H. E., 211 South Eighth St., Olean, N. Y.
'19 Schrank, J. J., Booth Fisheries Co., Sandusky, Ohio.
'00 Seagle, Geo. A., U. S. Bureau of Fisheries, Wytheville, Va.
'13 Seagrave, Arnold, Woonsocket, R. I.
'18 Seaman, Frank, Napanoch, N. Y.
'17 Seiz, B. F., Deputy Game Warden, Red Wing, Minn.
'00 Sellers, M. G., 1518 Sansom St., Philadelphia, Pa.
'17 Selvog, Hans R., Warroad, Minn.

'13 Shellford, Victor E., Dept. Zool., University of Illinois, Urbana, Ill.
'19 Sherwood, E. E., Seattle, Wash.
'11 Shira, Austin F., Mason City, Iowa.
'08 Shiras, Geo., 3d, Stoneleigh Count, Washington, D. C.
'18 Sholl, C. E., Box 62, Burlington, N. J.
'13 Singleton, J. Ernest, Woonsocket, R. I.
'03 *Slade, George P., 309 Broadway, P. O. Box 283, New York City.
'17 Smith, G. A., Oklahoma City, Okla.
'13 Smith, Herbert C., White Cloud, Mich.
'91 Smith, Dr. Hugh M., U. S. Commissioner of Fisheries, Washington, D. C.
'99 Smith, Lewis H., Algona, Iowa.
'05 Snyder, J. P., U. S. Bureau of Fisheries, Cape Vincent, N. Y.
'08 Speaks, John C., Columbus, Ohio.
'87 Spensley, Calvert, Mineral Point, Wis.
'17 Sportsmen's Review Publishing Co., 15 W. Sixth St., Cincinnati, Ohio.
'16 Spragle, L. H., Henryville, Pa.
'19 St. John, Larry, Chicago Tribune, Chicago, Ill.
'10 Stack, F. George, Summitville, Sullivan Co., N. Y.
'15 Starr, G. D., Lewis Bldg., Portland, Oregon.
'00 Starr, W. J., State Board of Fish Commissioners, Eau Claire, Wis.
'03 Steele, G. F., Sun Life Bldg., Montreal, Canada.
'03 Stevens, Arthur F., Ladentown, R. F. D. 44-A, Suffern, N. Y.
'12 Stivers, D. Gay, Butte Anglers' Association, Butte, Mont.
'04 Story, John A., U. S. Bureau of Fisheries, Green Lake, Me.
'16 Stronner, Jesse Lee, Orangeburg, S. C.
'14 Struven, Chas. M., 114 S. Frederick St., Baltimore, Md.
'16 Stucke, Edwin W., 3811 Brown St., Philadelphia, Pa.
'13 Sullivan, Walter E., Tufts School of Medicine, Boston, Mass.
'18 Sun, Dr. F. T., President, School of Fisheries, Tientsin, China.
'15 Sutro, Adolph Newton, 1155 Pine St., San Francisco, Cal.
'10 Sword, C. B., New Westminster, British Columbia, Canada.

'19 Taylor, H. F., U. S. Bureau of Fisheries, Washington, D. C.
'19 Terrell, Clyde B., Oshkosh, Wis.
'13 Thau, August B., 521 W. 29th St., Indianapolis, Ind.
'99 Thayer, W. W., U. S. Bureau of Fisheries, Northville, Mich.
'13 Thomas, Adrian, 190 E. Grand Boulevard, Detroit, Mich.
'19 Thompson, Chas. H., Colonial Trust Bldg., Philadelphia, Pa.
'18 Thompson, W. F., 930 E. Ocean Ave., Long Beach, Cal.
'00 Thompson, W. P., 123 N. Fifth St., Philadelphia, Pa.
'00 Thompson, W. T., U. S. Bureau of Fisheries, Bozeman, Mont.
'08 Thomson, G. H., Estes Park, Col.
'13 Tichenor, A. K., Secretary, Alaska Packers' Assn., San Francisco, Cal.
'14 Tillman, Robert L., Beacon Paper Co., St. Louis, Mo.
'13 *Timson, Wm., Vice-President, Alaska Packers Assn., San Francisco, Cal.
'92 Titcomb, John W., Conservation Commission, Albany, N. Y.
'11 Tongue, Leonard M., 906 American Bldg., Baltimore, Md.
'01 and '12 *Townsend, Dr. Charles H., Director New York Aquarium, New York, N. Y.
'13 Trexler, Col. Harry C., Allentown, Pa.
'13 Triggs, Chas. W., Booth Fisheries Co., 22 W. Monroe St., Chicago, Ill.
'15 Troyer, M., Astoria Iron Works, Seattle, Wash.
'16 Trull, Harry S., 317 E. 196th St., Fordham, N. Y.
'98 Tulian, Eugene A., Box 1304, New Orleans, La.
'18 Turner, Prof. C. L., Beloit College, Beloit, Wis.

'11 *Vallette, Luciano H., Chief of Section of Fish Culture, 827 Rivadavia, Buenos Aires, Argentina.
'09 Van Atta, Clyde H., U. S. Bureau of Fisheries, Yes Bay Hatchery, Ketchikan, Alaska.
'19 Van Cleave, Prof. H. J., University of Illinois, Urbana, Ill.
'14 *Vandergrift, S. H., 1728 New Hampshire Ave., Washington, D. C.
'19 Viosia, Percy, Jr., Natural History Bldg., New Orleans, La.
'19 Vincent, W. S., U. S. Bureau of Fisheries, Mammoth Spring, Ark.
'12 Vogt, James H., Nevada Fish Commission, Verdi, Nevada.
'09 Von Lengerke, J., 200 Fifth Ave., New York City.

'06 Waddell, John, Grand Rapids, Mich.
'19 Wagner, John, School House Lane, Germantown, Philadelphia, Pa.
'15 Wakefield, L. H., 1310 Smith Bldg., Seattle, Wash.
'96 Walker, Bryant, Detroit, Mich.
'11 Walker, Dr. H. T., 210 Main St., Denison, Texas.
'16 Wallace, Frederick William, 600 Read Bldg., 45 St. Alexander St., Montreal, Quebec, Canada.
'19 Wallace, Col. John H., Jr., Montgomery, Ala.
'96 Walters, C. H., Cold Spring Harbor, N. Y.
'98 Ward, Prof. H. B., University of Illinois, Urbana, Ill.
'12 Ward, J. Quincy, Executive Agent, Kentucky Game and Fish Commission, Frankfort, Ky.
'17 Ward, Robertson S., 172 Harrison St., East Orange, N. J.
'13 Webb, W. Seward, 44th St. and Vanderbilt Ave., New York City.
'16 Weeks, Andrew Gray, 8 Congress St., Boston, Mass.
'17 Welsch, H. N., Box 4, Salt Lake City, Utah.
'15 Welsch, R., Bellingham, Wash.
'19 Werrick, Frank J., Bigrock Creek Trout Club, St. Croix Falls, Wis.
'13 Westerfeld, Carl, 702 Postal Bldg., San Francisco, Cal.
'13 Westermann, J. H., Harrietta, Mich.
'19 Wheeler, Chas. E., Stratford, Conn.
'15 Wheeler, Fred M., 546 Fulton St., Chicago, Ill.
'18 White, Jas., Conservation Commission, Ottawa, Canada.
'10 Whitman, Edward C., Canso, Nova Scotia, Canada.
'15 Whiteside, R. B., 204 Sellwood Bldg., Duluth, Minn.
'19 Wickliff, Edward L., 1309 Atchinson St., Columbus, Ohio.
'17 Williams, J. A., Shell-Fish Commissioner, Tallahassee, Fla.
'01 Wilson, C. H., Glen Falls, N. Y.
'10 Winchester, Grant E., Forest, Fish and Game Commission, Bemus Point, N. Y.
'00 Winn, Dennis, U. S. Bureau of Fisheries, 1217 L. C. Smith Bldg., Seattle, Wash.
'99 Wires, S. P., U. S. Bureau of Fisheries, Duluth, Minn.
'13 *Wisner, J. Nelson, Director, Institute de Pesca del Uurguay, Punta del Esto, Uruguay.
'05 *Wolters, Chas. A., Oxford and Marvine Streets, Philadelphia, Pa.
'97 Wood, C. C., Plymouth, Mass.
'13 Woods, John P., President, Missouri State Fish Commission, First and Wright Sts., St. Louis, Mo.
'14 Work, Gerald, Perkins Hill, Akron, Ohio.
'84 Worth, S. G., 518 Colonial Ave., Norfolk, Va.
'19 Wright, Prof. Albert Hazen, Cornell University, Ithaca, N. Y.

'09 Yerington, Edward B., Board of Fish Commissioners, Carson City, Nevada.
'16 Younger, R. J., Houma, La.

'99 Zalsman, P. G., Grayling, Mich.

MEMBERS ADMITTED AT MEETING, SEPTEMBER, 1920.

BARBOUR, F. K., 96 Franklin St., New York, N. Y.
BAXTER, A. C., Chief, Ohio Fish and Game Division, Columbus, Ohio.
CRIE, H. D., Director, Sea and Shore Fisheries Commission, Rockland, Me.
DREISBACH, LEON, Erie, Pa.
DOLAN, GEORGE A., Fish Commissioner, Westerly, R. I.
FINLAYSON, ALEX C., Dominion Inspector of Hatcheries, Ottawa, Canada.
GREENE, JOHN V., Assistant, U. S. Bureau of Fisheries, Washington, D. C.
GOULD, EDWIN W., State Sea Food Protective Commission, Portland, Me.
KIPLINGER, WALTER C., 2234 Park Ave., Indianapolis, Ind.
MACKAY, D. A., Collegiate Institute, Ottawa, Canada.
MILES, LEE, Probate Judge, Little Rock, Ark.
RICH, WALTER H., Agent, Bureau of Fisheries, Falmouth, Me.
STUBER, JAMES W., Bureau of Fish and Game, Columbus, Ohio.
TRAVERS, JOHN T., Fish and Game Dept., Columbus, Ohio.
VICKERS, HARRISON W., Chairman, Conservation Commission, 512 Munsey Building, Baltimore, Md.
WALKER, S. J., District Inspector of Hatcheries, Ottawa, Canada.
WELLS, WM. F., Conservation Commissioner, Albany, N. Y.
WHITEWAY, SOLOMON P., St. Johns, Newfoundland.
WILBUR, HARRY C., Commissioner, Sea and Shore Fisheries, Portland, Me.

RECAPITULATION.

Honorary	67
Corresponding	12
Patrons	53
Active	563
Total	695

CONSTITUTION

(As amended to date)

ARTICLE I

NAME AND OBJECT

The name of this Society shall be American Fisheries Society. Its object shall be to promote the cause of fish culture; to gather and diffuse information bearing upon its practical success, and upon all matters relating to the fisheries; the uniting and encouraging of all interests of fish culture and the fisheries, and the treatment of all questions regarding fish, of a scientific and economic character.

ARTICLE II

MEMBERSHIP

Active Members.—Any person may, upon a two-thirds vote and the payment of two dollars, become a member of this Society. In case members do not pay their fees, which shall be two dollars per year after first year, and are delinquent for two years, they shall be notified by the treasurer, and if the amount due is not paid within a month thereafter, they shall be, without further notice, dropped from the roll of membership. Libraries may become members on the payment of the two dollar annual fee.

Any sporting or fishing club, society, firm or corporation may upon the payment of an annual fee of five dollars, become a member of this Society and entitled to all its publications.

Any State board or commission, upon the payment of an annual fee of two dollars, may become a member of this Society and entilled to all its publications.

Life Members.—Any person shall, upon a two-thirds vote and the payment of twenty-five dollars, vecome a life member of this Society, and shall thereafter be exempt from all annual dues.

Patrons.—Any person, society, club, firm or corporation, on approval by the Executive Committee and on payment of $50.00, may become a Patron of this Society with all the privileges of a

life member, and than shall be listed as such in all published lists of the Society. The money thus received shall become part of the permanent funds of the Society and the interest alone be used as the Society shall designate.

Honorary and Corresponding Members.—Any person can be made an honorary or a corresponding member upon a two-thirds vote of the members present at any regular meeting.

The President (by name) of the United States and the Governors (by name) of the several States shall be honorary members of the Society.

Election of Members Between Annual Meetings.—The President, Recording Secretary and Treasurer of the Society are hereby authorized, during the time intervening between annual meetings, to act on all individual applications for membership in the Society, a majority vote of the Committee to elect or reject such applications as may be duly made.

ARTICLE III

SECTIONS

On presentation of a formal written petition signed by one hundred or more members, the Executive Committee of the American Fisheries Society may approve the formation in any region of a Section of the American Fisheries Society to be known as the ——— Section.

Such a Section may organize by electing its own officers, and by adopting such rules as are not in conflict with the Constitution and By-Laws of the American Fisheries Society.

It may hold meetings and otherwise advance the general interests of the Society, except that the time and place of its annual meeting must receive the approval of the Executive Committee of the American Fisheries Society, and that without specific vote of the American Fisheries Society, the Section shall not commit itself to any expression of public policy on fishing matters.

It may further incur indebtedness to an amount necessary for the conduct of its work not to exceed one-half of the sum received in annual dues from members of said section.

Such bills duly approved by the Chairman and Recorder of the Section shall be paid on presentation to the Treasurer of the American Fisheries Society.

ARTICLE IV

OFFICERS

The officers of this Society shall be a president and a vice-president, who shall be ineligible for election to the same office until a year after the expiration of their term; a corresponding secretary, a recording secretary, an editor, a treasurer, and an executive committee of seven, which, with the officers before named, shall form a council and transact such business as may be necessary when the Society is not in session—four to constitute a quorum.

In addition to the officers above named there shall be elected annually five vice-presidents who shall be in charge of the following five divisions or sections:

1. Fish culture.
2. Commercial fishing.
3. Aquatic biology and physics.
4. Angling.
5. Protection and legislation.

Vice-presidents of sections may be called upon by the President to present reports of the work of their sections, or they may voluntarily present such reports when material of particular value can be offered by a given division.

ARTICLE V

MEETINGS

The regular meeting of the Society shall be held once a year, the time and place being decided upon at the previous meeting, or, in default of such action, by the executive committee.

ARTICLE VI

ORDER OF BUSINESS

1. Call to order by president.
2. Roll call of members.
3. Applications for membership.
4. Reports of officers.
   a. President.
   b. Secretary.
   c. Treasurer.
   d. Vice-Presidents of Divisions.
   e. Standing Committees.
5. Committees appointed by the president.
   a. Committee of five on nomination of officers for ensuing year.
   b. Committee of three on time and place of next meeting.
   c. Auditing committee of three.
   d. Committee of three on programme.
   e. Committee of three on publication.
   f. Committee of three on publicity.
6. Reading of papers and discussion of same.

   (Note—In the reading of papers preference shall be given to the members present.)
7. Miscellaneous business.
8. Adjournment.

ARTICLE VII

CHANGING THE CONSTITUTION

The constitution of the Society may be amended, altered or repealed by a two-thirds vote of the members present at any regular meeting, provided at least fifteen members are present at said regular meeting.